

## AMENDMENTS TO THE CLAIMS

Please replace the pending claims with the following claim listing:

1. **(Canceled)**

2. **(Currently Amended)** An optical medium comprising a cubic crystal comprising  $\text{KTaO}_{3-d}$ , where the amount of oxygen deficiency  $d$  is  $0 \leq d < 10^{-7}$  controlled based on a monotonically increasing relationship between the oxygen deficiency and an absorption coefficient.

3-5. **(Canceled)**

6. **(Currently Amended)** An optical lens comprising:

a cubic crystal material comprising  $\text{KTaO}_{3-d}$ , where the amount of oxygen deficiency  $d$  is  $0 \leq d < 10^{-7}$  controlled based on a monotonically increasing relationship between the oxygen deficiency and an absorption coefficient; and

a refractive index of more than 2.2 in the wavelength range of 360nm – 800nm, and a transmission of 80% or more with a 10mm thickness.

7-10. **(Canceled)**

11. **(Currently Amended)** An optical prism comprising:

a cubic crystal material comprising  $\text{KTaO}_{3-d}$ , where the amount of oxygen deficiency  $d$  is  $0 \leq d < 10^{-7}$  controlled based on a monotonically increasing relationship between the oxygen deficiency and an absorption coefficient; and

a refractive index of more than 2.2 in the wavelength range of 360nm – 800nm, and a transmission deterioration of 1% or less under a 10-minute irradiation with an irradiation intensity of  $2.2 \text{ W/cm}^2$ .

12-15. **(Canceled)**